

Bahan Ajar

Chapter 13



Materi Pembelajaran

Matakuliah :

PEMROGRAMAN TERSTRUKTUR

Kode Matakuliah : SKO 21411

Prodi : **SISTEM KOMPUTER**

Dosen Pengampu Matakuliah:

Bayu Nugroho, S.Kom., M.Eng

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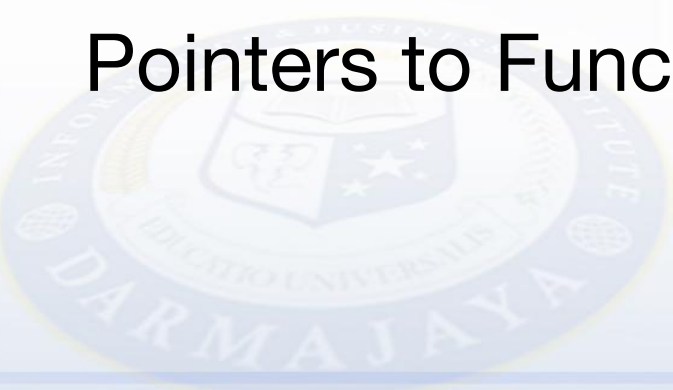
Array

Array Multi Dimensional

Pointers to Functions

enum

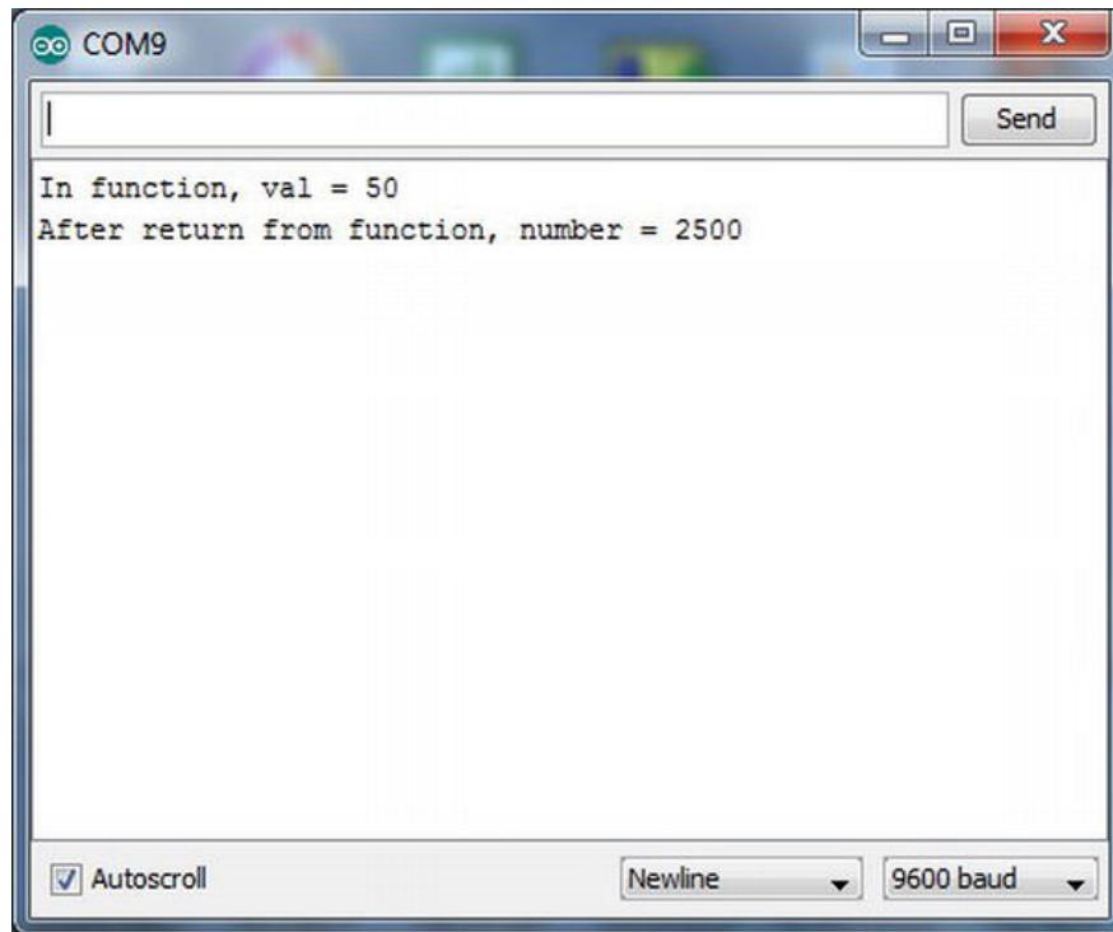
Pointers to Functions



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Pointer Arithmetic

Sample run of pointer to function program.

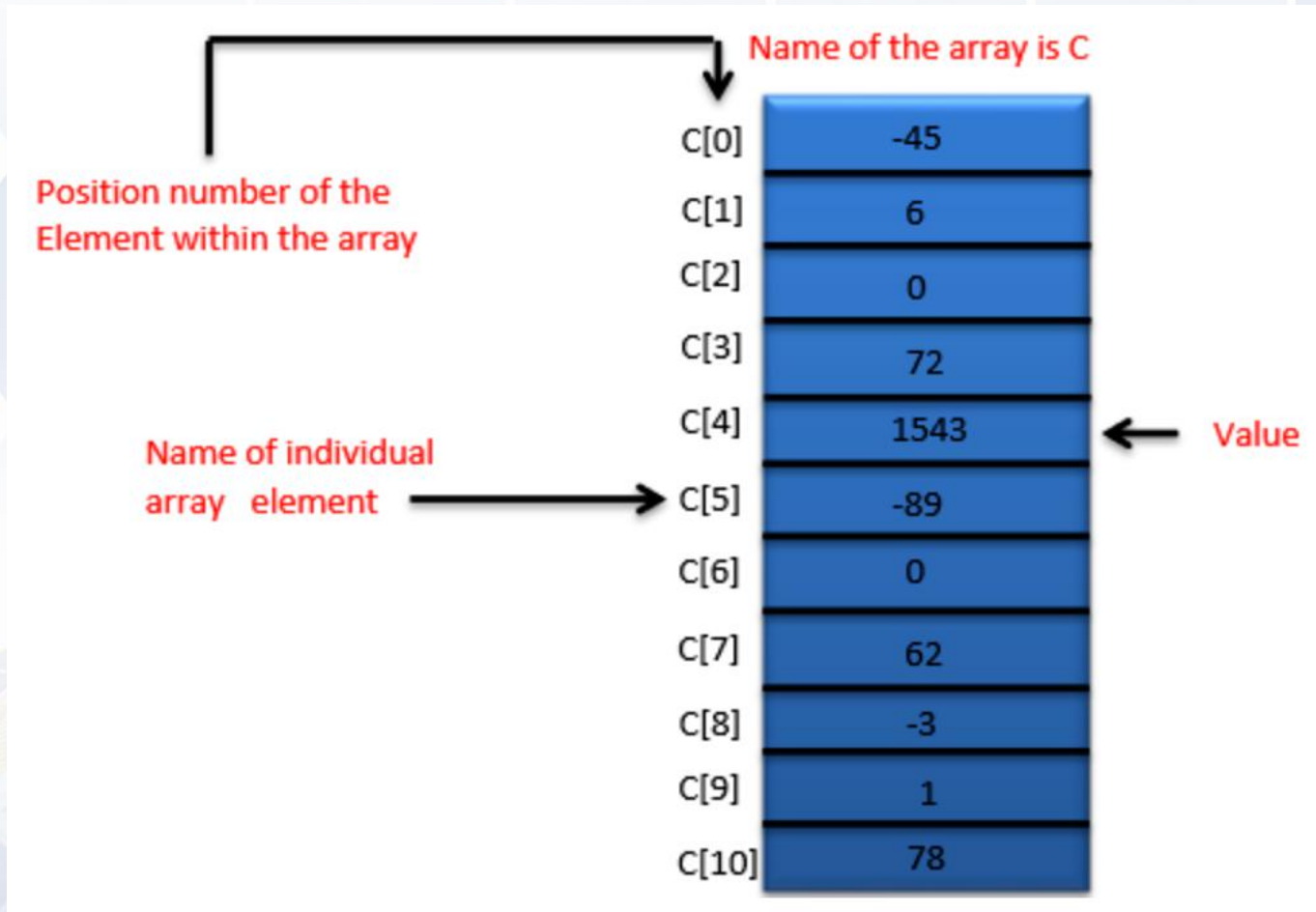


A screenshot of a serial terminal window titled "COM9". The window contains the following text:

```
In function, val = 50  
After return from function, number = 2500
```

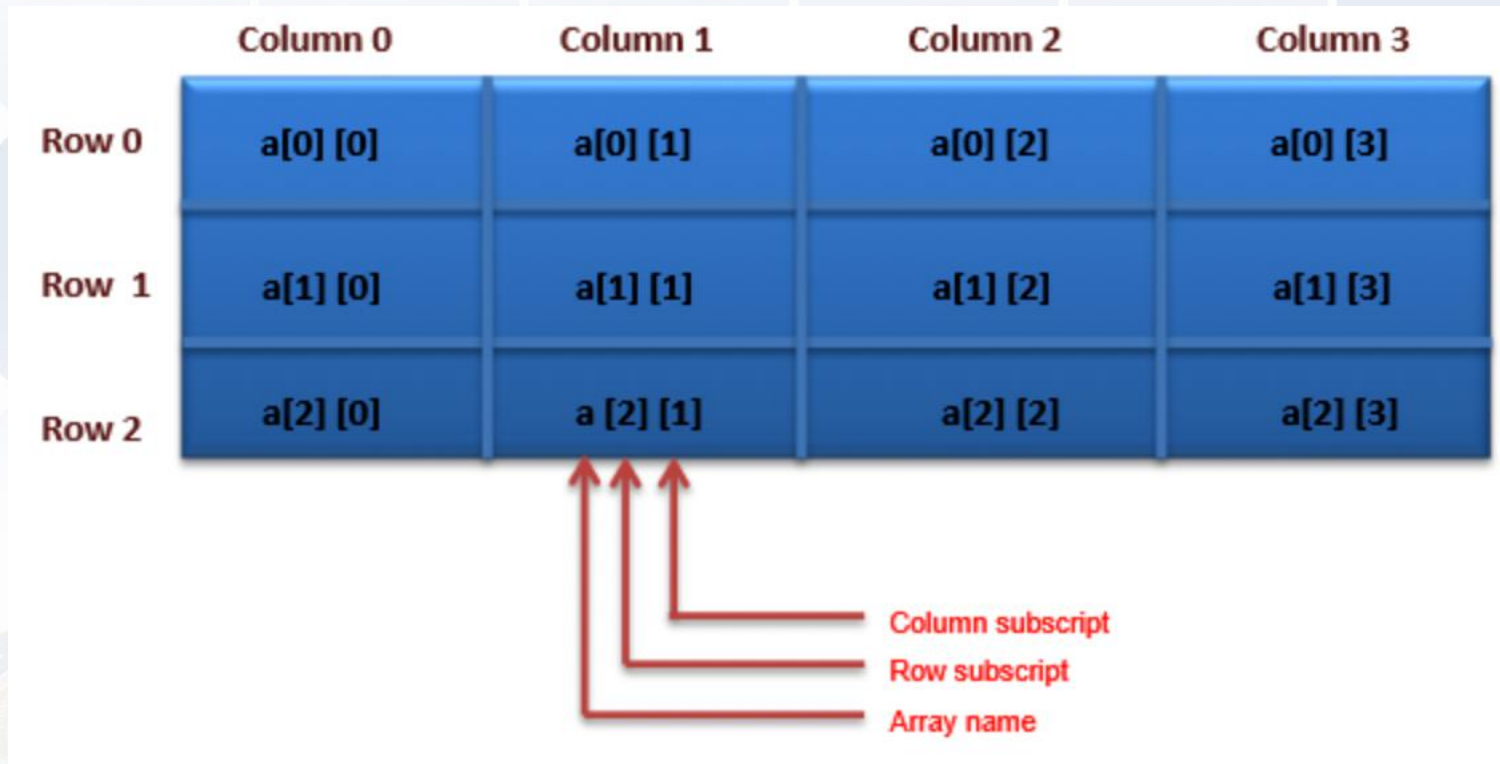
The window also features a "Send" button at the top right, an "Autoscroll" checkbox (checked) at the bottom left, and dropdown menus for "Newline" and "9600 baud" at the bottom right.

Array



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Array Multidimensional



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enum

The enum syntax is:

```
enum NameOfEnum {enumMember List};
```

By default, the list is assigned values starting with 0 and is incremented by 1 for each member. For example:

```
enum days {SUNDAY, MONDAY, TUESDAY,  
WEDNESDAY, THURSDAY, FRIDAY, SATURDAY};
```

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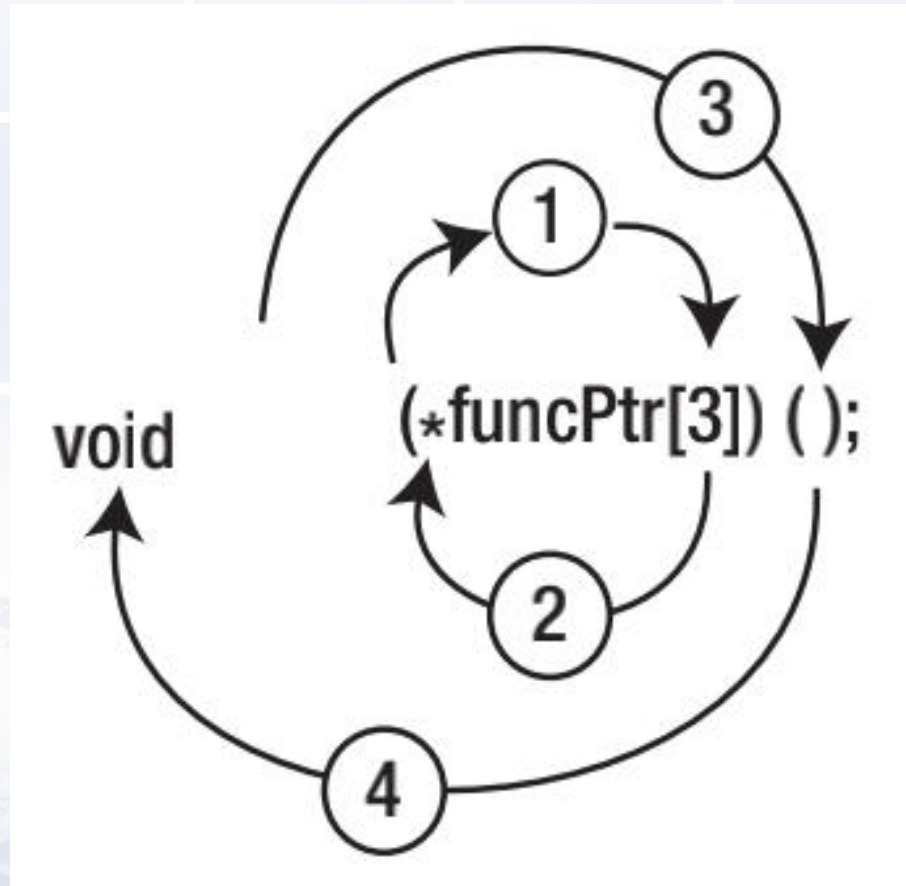
would associate 0 with SUNDAY, 1 for MONDAY, and 6 for SATURDAY. You can override the default numbering by using explicit assignments, such as:

```
enum speeds {RESIDENTIAL = 35, STATEROAD =  
55, FEDERALHIGHWAY = 70};
```

To define an enumerated variable, you may use either of the following syntax forms:

```
enum days myDay;  
enum speeds {RESIDENTIAL = 35, STATEROAD =  
55, FEDERALHIGHWAY = 70} mySpeed;
```

The Right-Left Rule



Pointers to Functions

```
void setup() {  
    Serial.begin(9600); // Serial link to PC  
}  
void loop() {  
    int number = 50;  
    int (*funcPtr)(int n); // This defines a pointer to  
function  
    funcPtr = DisplayValue; // This copies the lvalue of  
DisplayValue  
    number = (*funcPtr)(number);  
}
```

Pointers to Functions

```
Serial.print(" After return from function, number = ");  
Serial.println(number);  
Serial.flush();  
exit(0);  
}  
int DisplayValue(int val)  
{  
    Serial.print("In function, val = ");  
    Serial.println(val);  
    return val * val;  
}
```

Tugas Mandiri (teori):

1. When can you use two pointers in an arithmetic expression?
2. If you define a pointer to a function, what is the value of a properly initialized pointer to function?
3. What is the purpose of the Right-Left Rule?



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Tugas Mandiri (prakt):

Lakukan perakitan skema rangkaian LED di proteus dengan perintah Array 1 dimensi dan 2 dimensi untuk menghidupkan LED.



end

